

IN THE CLAIMS

This listing of claims replaces all previous versions and listings of claims in the present application.

LISTING OF CLAIMS

1. (Currently Amended) A computer implemented document classification apparatus, comprising:
 - a feature extractor that extracts a plurality of features from a document;
 - a classifier operable on the extracted features to process the document in a knowledge acquisition mode in which the association of a classification with each document is added incrementally to a knowledge base and in a document classification mode in which the classifier, using the knowledge base, is operable to determine a predicted classification for the document, the classifier being switchable between the modes under user control for each document; and
 - a router arranged to route the document to one of a plurality of destinations in dependence upon the classification, wherein the classification has associated therewith a confidence value,
 - and wherein the router is arranged to compare the confidence value to a threshold, the router being arranged to make at least one of an automatic routing decision and a manual routing decision in dependence upon the comparison,
 - and wherein the threshold is adjustable to match a desired confidence value to allow transition from a state where manual routing is favored to a state that favors automatic routing.

and wherein at least one of a misrouted document being sendable to a correct destination by a manual routing and the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted.

and wherein a rule insertion being performable in the knowledge acquisition mode in which a plurality of features are input by a user to the classifier together with a classification with which the features are associated.

2. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein the classifier comprises a supervised adaptive resonance theory (ART) system.

3. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 2, wherein the system comprises an ARTMAP system.

4. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 2, wherein the system comprises an adaptive resonance associative map (ARAM) system.

5-8. (Canceled)

9. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein one of the plurality of destinations is a system administrator workstation where the router is arranged to route the document for manual routing after the manual routing decision.

10. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein the features are formed into a feature vector for input to the classifier.

11. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein the features comprise at least one of classification-associated words and phrases which may appear in the document.

12. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein the feature extractor is arranged to provide a measure of the frequency of occurrence of the features in the document.

13. (Previously Presented) The computer implemented document classification apparatus as claimed in claim 1, wherein the destinations include a system administrator workstation to which the other destinations are connected, misrouted documents being sendable by the other destinations to the system administrator workstation for manual routing.

14. (Currently amended) The computer implemented document classification apparatus as claimed in claim 13, wherein the system administrator workstation is connected to the feature extractor and the classifier, the arrangement being such that a misdirected misrouted document, in association with an actual classification supplied at the system administrator workstation, is processed in the knowledge acquisition mode to add the association of the actual classification with the misdirected document to the knowledge base.

15-18. (Cancelled)

19. (Currently amended) A computer implemented document classification apparatus, comprising:

a feature extractor that extracts a plurality of features from a document;

a classifier operable on the extracted features to process the document in one of a knowledge acquisition mode or a document classification mode and to output a predicted classification and a confidence value, wherein the classifier is switchable between the modes based on user input;

a router operable in one of an automatic or manual mode to route the document to at least one of a plurality of destinations, wherein the router mode is switchable between the modes based on a comparison of the confidence value to a threshold,

and wherein at least one of a misrouted document being sendable to a correct destination by a manual routing and the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted,

and wherein a rule insertion being performable in the knowledge acquisition mode in which a plurality of features are input by a user to the classifier together with a classification with which the features are associated.

20. (Previously Presented) The computer implemented document classification apparatus according to claim 19, wherein the threshold is adjustable to match a desired confidence value to allow transition from a state where manual routing is favored to a state that favors automatic routing.

21. (Previously Presented) The computer implemented document classification apparatus the according to claim 19, wherein the user is a system administrator workstation coupled to the feature extractor and the classifier.

22. (Cancelled)

23. (Currently Amended) The computer implemented document classification apparatus according to claim [[22]] 19, wherein when a document has been determined

to be misrouted, the system administrator classifies the misrouted document to provide an actual classification.

24. (Previously Presented) The computer implemented document classification apparatus according to claim 23, wherein the classifier adds an association to the actual classification.

25. (Cancelled)